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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
TALBOT, MICHAEL	
ART UNIT	**PAPER NUMBER**
3726	

MAIL DATE	DELIVERY MODE
05/12/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/517,205	ROSBERG, NICLAS	
	Examiner	Art Unit	
	MICHAEL W. TALBOT	3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 April 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,7,9,10 and 12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,7,9,10 and 12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 September 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 19 February 2008 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 84/04367. WO 84/04367 shows in Figures 1-3 a hydro-mechanical mandrel having one end (inner surface at “b” as shown in Fig. 1) for mounting in a machining device and having a second end (outer surface at “a” as shown in Fig. 1) for releasably holding a tool (a). WO 84/04367 further shows the mandrel comprising an inner sleeve (containing surface “e”) and an outer sleeve (containing surface “f”) enclosing at least one chamber (c) in which a clamping means in the shape of an annular piston (d) is enclosed. WO 84/04367 further shows the piston by means of hydraulically operating means is displaceable in an axial direction (page 5, lines 13-20), wherein the piston and the inner sleeve have respective contacting and interacting conical surfaces with each other (page 5, lines 10-13) having a conicity that is self-locking (page 5, lines 24-26), whereby axial displacement of the piston in one direction causes radial expansion of the outer sleeve for clamping the tool and axial displacement of the piston in

another direction causes relief of the outer sleeve for releasing the tool. WO 84/04367 further shows a sealing means arranged between the piston and the outer sleeve (col. 5, lines 20-24), wherein the sealing means is arranged closer to a pressurization side of the piston (to the left side of piston "d" within chamber "c" via oil feed "h" as viewed in Fig. 1) than to a relief side of the piston (to the right side of piston "d" within chamber "c" via oil feed "i" as viewed in Fig. 1). This is true since all mating surfaces (for example at m,n as viewed in Fig. 3) are assembled with slight interference or in the alternative, via annular sealing rings such as O-rings (col. 5, lines 20-24), therefore the sealing means at location "m" as shown in Fig. 3 is arranged closer to the pressurization side of the piston than to a relief side of the piston.

Regarding claim 1, the phrase "a mandrel having one end for mounting in a machining device and having a second end for releasably holding a tool" does not further limit the claim and is merely a functional/intended use statement not defining any specific structure. It should be noted that it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. The only requirement is that the prior art reference be capable of said intended use. See MPEP 2114. In this case, WO 84/04367 discloses a structure fully capable of having one end (inner surface at "b" as shown in Fig. 1) being connected to a machining device and a second end (outer surface at "a" as shown in Fig. 1) for releasably holding a tool regardless as to how well it performs.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to

a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-4,7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elsner (US 5,156,480) in view of WO 84/04367. Elsner '480 shows in Figures 1-4 a hydro-mechanical chuck (1) having one end (at 3) for mounting in a machining device and having a second end (at 4,5) for releasably holding a shaft (2) of a tool. Elsner '480 further shows the hydro-mechanical chuck comprising an inner sleeve (5) with an axial bore for receiving the shaft of the tool and an outer sleeve (4) enclosing at least one chamber (6,9,10) in which a clamping means in the shape of an annular piston (7) is enclosed. Elsner '480 further shows the piston by means of hydraulically operating means (19,20) is displaceable in an axial direction, wherein the piston and the outer sleeve have respective contacting and interacting conical surfaces (at 8) with each other having a conicity that is self-locking, whereby axial displacement of the piston in one direction causes radial displacement of the inner sleeve for clamping the shaft and axial displacement of the piston in another direction causes relief of the inner sleeve for releasing the shaft (page 3, lines 31-48). Elsner '480 further shows the chamber including a pressurized chamber (9 or 10) and a relief chamber (10 or 9). Elsner '480 further shows the inner sleeve and outer sleeve being joined together by welding (at tear drop locations located at the extreme outside and inside surfaces between the inner and outer sleeves). Elsner '480 further shows a part intended for clamping a tool is integrated with a part intended for mounting in a machining device (via bolt). Elsner '480 lacks the conicity being between the inner sleeve and the piston, and a sealing means, in the shape of a sealing O-ring, arranged between the piston and the outer sleeve and arranged closer to a pressurization side of the piston than to a relief side of the piston.

WO 84/04367 shows in Figures 1-3 a hydro-mechanical chuck having one end (inner surface at "b" as shown in Fig. 1) for mounting in a machining device and having a second end

(outer surface at “a” as shown in Fig. 1) for releasably holding a shaft (b) of a tool. WO 84/04367 further shows the hydro-mechanical chuck comprising an inner sleeve (containing surface “e”) with an axial bore for receiving the shaft of the tool (Fig. 1) and an outer sleeve (containing surface “f”) enclosing at least one chamber (c) in which a clamping means in the shape of an annular piston (d) is enclosed. WO 84/04367 shows the piston by means of hydraulically operating means is displaceable in an axial direction (page 5, lines 13-20), wherein the piston and the inner sleeve have respective contacting and interacting conical surfaces with each other (page 5, lines 10-13) having a conicity that is self-locking (page 5, lines 24-26), whereby axial displacement of the piston in one direction causes radial displacement of the inner sleeve for clamping the shaft and axial displacement of the piston in another direction causes relief of the inner sleeve for releasing the shaft (page 5, lines 13-20). WO 84/04367 further shows a sealing means arranged between the piston and the outer sleeve (col. 5, lines 20-24), wherein the sealing means is arranged closer to a pressurization side of the piston (to the left side of piston “d” within chamber “c” via oil feed “h” as viewed in Fig. 1) than to a relief side of the piston (to the right side of piston “d” within chamber “c” via oil feed “i” as viewed in Fig. 1). This is true since all mating surfaces (for example at m,n as viewed in Fig. 3) are assembled with slight interference or in the alternative, via annular sealing rings such as O-rings (col. 5, lines 20-24), therefore the sealing means at location “m” as shown in Fig. 3 is arranged closer to the pressurization side of the piston than to a relief side of the piston. In view of this teaching of WO 84/04367, it would have been obvious to one of ordinary skill in the art to modify the hydro-mechanical chuck of Elsner ‘480 to include a conicity between the piston and inner sleeve to provide the desired clamping surfaces/forces and to include O-rings to overcome leakage of the hydraulic system.

Regarding claim 1, the phrase “a chuck having one end for mounting in a machining device and having a second end for releasably holding a shaft tool” does not further limit the claim and is merely a functional/intended use statement not defining any specific structure. It should be noted that it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. The only requirement is that the prior art reference be capable of said intended use. See MPEP 2114. In this case, Elsner ‘480 discloses a structure fully capable of having one end (at 3) being connected to a machining device and a second end (at 4,5) for releasably clamping a tool regardless as to how well it performs.

Response to Arguments

6. Applicant's arguments filed 19 February 2008 have been fully considered but they are not persuasive.

7. Examiner respectfully disagrees with Applicant’s assertion that the WO 84/04367 references does not clearly teach a sealing means arranged between the piston and the outer sleeve, wherein the sealing means is arranged closer to a pressurization side of the piston than to a relief side of the piston.

WO 84/04367 clearly shows a sealing means arranged between the piston and the outer sleeve (col. 5, lines 20-24), wherein the sealing means is arranged closer to a pressurization side of the piston (to the left side of piston “d” within chamber “c” via oil feed “h” as viewed in Fig. 1) than to a relief side of the piston (to the right side of piston “d” within chamber “c” via oil feed “i” as viewed in Fig. 1). This is true since all mating surfaces (for example at m,n as viewed in Fig. 3) are assembled with slight interference or in the alternative, via annular sealing rings such as O-rings (col. 5, lines 20-24), therefore the sealing means at location “m” as shown in

Fig. 3 is arranged closer to the pressurization side of the piston than to a relief side of the piston.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Any inquiry concerning the content of this communication from the examiner should be directed to Michael W. Talbot, whose telephone number is 571-272-4481. The examiner's office hours are typically 8:30am until 5:00pm, Monday through Friday. The examiner's supervisor, Mr. David P. Bryant, may be reached at 571-272-4526.

In order to reduce pendency and avoid potential delays, group 3720 is encouraging FAXing of responses to Office Actions directly into the Group at FAX number 571-273-8300. This practice may be used for filling papers not requiring a fee. It may also be used for filing papers, which require a fee, by applicants who authorize charges to a USPTO deposit account. Please identify Examiner Michael W. Talbot of Art Unit 3726 at the top of your cover sheet.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. W. T./
Examiner, Art Unit 3726
2 May 2008

/David P. Bryant/
Supervisory Patent Examiner, Art Unit 3726